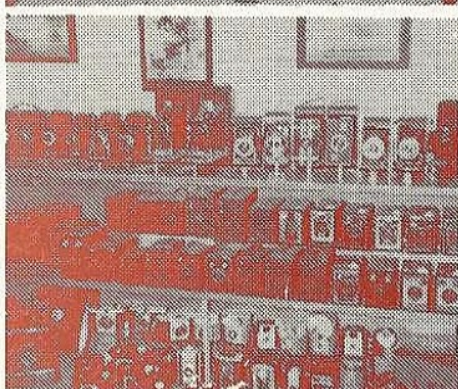
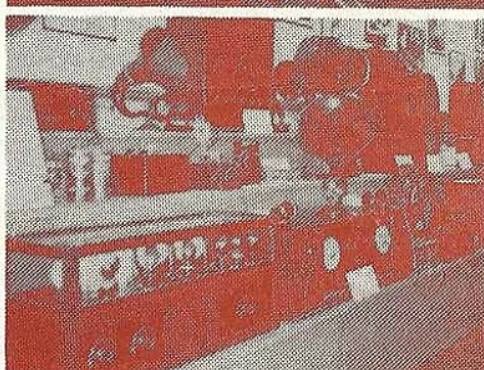
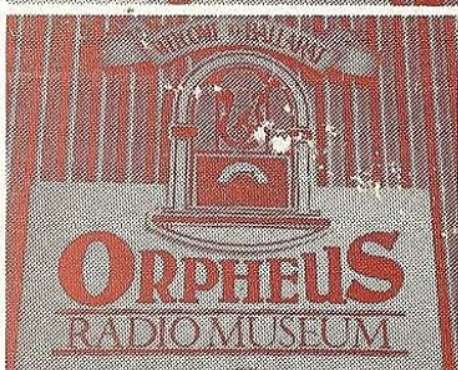
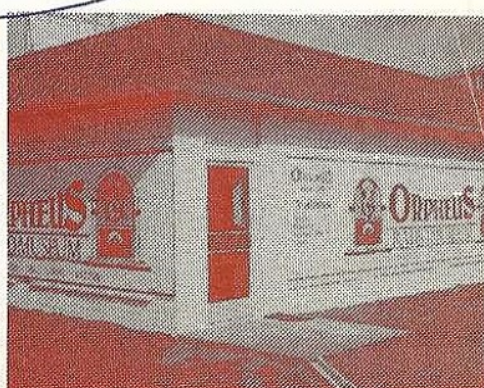
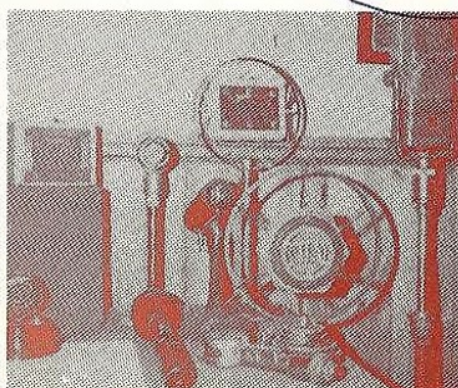
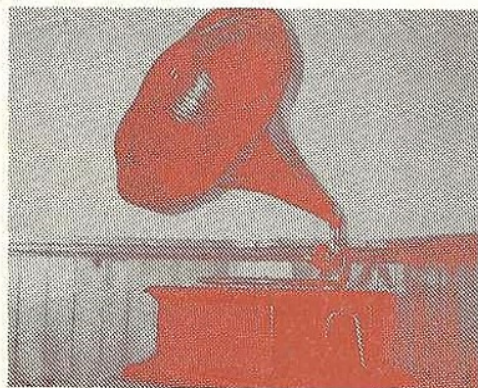


NEWS

SEP/91 July 91 ①



© Monthly Newsletter of the
Ballarat Amateur Radio Group

Sept 1991
(2)

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 DAVID McCONNELL VK3YNB
Newsletter Editors: BOB TERRILL VK3BNC 395317 391001
 HARRY HEKKEMA VK3KGL 357563 391001

Repeaters: VK3RBA - 146.750 Voice. Mt. Buninyong (ch. 3)
 VK3RBS - 146.900 Voice. Smeaton Hill (ch. 6)
 VK3RPC - 147.575 Packet. Mt. Warrenheip
Club Net: ON 3.5610 Mhz. SSB +/- QRM
 Every Thursday at 8 p.m.

B.A.R.G. meets on the LAST FRIDAY in every month except December at the Ballarat Education Centre, Hopetoun St., Ballarat at 7.30 p.m.

Committee meetings are held at the Education Centre on the Wednesday two weeks prior to the Club meeting at 7.30 p.m. Executive committee members are expected to attend and any club member with business for discussion is welcome.

All correspondence to: The Secretary, BARG Inc., P.O. Box 216E, Ballarat East, 3350.

Applications for Awards to: Maurie Batt, RSD, Rokewood Junction, 3351.



CNR. RING RD. & WESTERN HWY BALLARAT
 (OPEN 10AM - 5 PM 7 DAYS A WEEK)

FEATURES

- GRAMOPHONES • VINTAGE RADIOS • VISITORS PARTICIPATION
- MEMORABILIA • AUDIO DISPLAYS • DEMONSTRATIONS • CRYSTAL SETS

The "Orpheus Radio Museum" is operated by Richard and Sonja Wilson.
 The collection includes their private collection, the 3BA collection and other items on loan to the museum.
 The museum is run with the idea of preserving the history of radio in Australia and making it accessible to the public.
 If anyone has any information or items of interest to the museum, would they please contact, or write to, the "Orpheus Radio Museum" RSD B98, Ballarat 3352. Telephone (053) 34 2513.
 Let the public enjoy your piece of Radio History.

Sept 1991
~~July 1991~~ 3

PRESIDENTS NOTE

I hope we all still have aerals in their respective places after the wind, rain, snow and hail that has been experienced in the area over the last month.

The next month will be a busy one for BARG with the Hamvention on 27th of October, the raffle tickets for the Mystery Flight appear to be selling well. Members are reminded that the Hamvention does not run by itself and if any of us can help in anyway during the days leading up to the event, or on the day, Kevin VK3WN would like to hear from you.

I have included the progressive scores for the scramble and at this stage like to congratulate the new calls we are hearing in the area after the last exams.

The club has received notification of the WIA Exam Service requirements and at the next meeting we will be proposing that BARG hold an exam at the end of October, probably on the night of the October meeting immediately before it commences, this might change depending on the response from potential candidates. So if you are looking to upgrade or try again as many of us have for the elusive morse receiving then let us know at the next meeting so that we can guage response.

73's TOM VK3DMK

=====

SCRAMBLE PROGRESSIVE SCORES

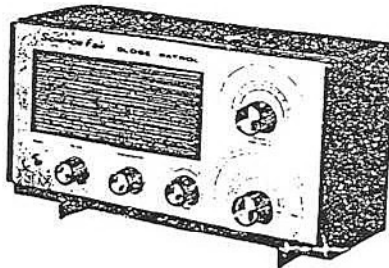
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VK3DOK	70 Points
VK3DCS	69 Points
VK3KAY	43 Points
VK3CIS	38 Points
VK3JAT	27 Points

=====

WANTED TO BUY

Tandy SW Radio kit (Globe Patrol)



Laurie Moss, VK3DLO
339 Albert St.
SEBASTOPOL. 3356.
Ph 053 357926

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MINUTES OF GENERAL MEETING HELD 30th AUGUST 1991

MEETING OPENED by President Tom DMK at 7.40pm with 43 members and visitors in attendance.

APOLOGIES VK3 IBM, CFI, FMC, LDC, ADB, BNC, DS, ZHH, AXH, CCB, SE, NIZ.

MINUTES of previous meeting as circulated were confirmed. CAZ/DCS.

CORRESPONDENCE IN Betty Terrill thanks for dinner for Hamvention helpers.

CORRESPONDENCE OUT Invitation to Peter Hallgarten to speak at August meeting.

TREASURERS REPORT General a/c \$1053.24. VS&L a/c \$5094.70.
Accounts for \$436.08. passed for payment. KGL/YMW.

NEWSLETTER 113 copies now sent out monthly. YOUR CONTRIBUTION IS NEEDED.

CLUB NET is being well supported at present, There is still room for more.

TECHNICAL Merv KAW reported no problems at present.

HAMVENTION It is now confirmed that venue will be Bray Raceway on October 27th. Raffle prize will be a Mystery Flight and tour with Ansett. Exhibitors will be charged \$10.00 per trestle to cover hire of trestles, those wishing to sell from their cars will pay \$5.00. Moved FGC seconded JAT that Foxhunts be conducted on the Saturday prior to the Hamvention as well as the Sunday. carried.

WICEN Gordon FGC waened that a disaster exercise would be held shortly.

GENERAL BUSINESS.

Moved FGC seconded JAT that committee proceed to take out the Public Risks Insurance. carried.

It was decided that the Club would operate a station for the Scouts Jamboree at Mt. Beckworth.

Congratulations were extended to Maury XEX on his 80th Birthday.

MEETING CLOSED at 8.20pm and after a coffee break Peter Hallgarten assisted by Merv KAW gave a talk and demonstration of Packet Radio.

#####

73s Jim CFB.

NEXT BARG MEETING is on 27th September at Ballarat Education Centre. 7.30pm.

THIS BUL. (OR BULL) DEPENDING ON THE SCHOOL U WENT 2; IS TO TRY AND SAVE THE HAIR OF THE FRUSTRATED BAYCOM HOPEFUL, I HAVE HAD BAYCOM FOR SEVERAL MONTHS, AND NOW THAT I HAVE IT WORKING AS WELL AS IS POSSIBLE, I HOPE TO BE ABLE TO ENCOURAGE AND ENLIGHTEN ALL THOSE WHO ARE HAVING PROBLEMS. I AM NOT AN EXPERT, SO PLEASE DO NOT QUOTE ME.

--- WARNING ---

BAYCOM IS NOT DESIGNED TO WORK WITH CONVENTIONAL RS-232 CONFIFIGATION.

25 PIN RS-232	TCM 3105	9 PIN EQUIVILENT
20 DTR----->-----PIN 14 TXD		DTR PIN 4
5 CTS----<-----PIN 8 RXD		CTS 8
4 RTS----PTT----<>		RTS 7
7 GND-----GND		SIG GND 5

1.. THERE ARE TWO TYPES OF MODEMS I KNOW OF. THE AM7910 DIGICOM MODEM AND THE TCM 3105 BAYCOM MODEM. THE DIGICOM MODEM I USED WITH THE C64 ON DIGICOM, I TRIED WITH THE BAYCOM PRGM ON MY IBM CLONE COMPUTER, IT DID NOT WORK, BECAUSE IT RUINED THE OPTOCOUPLER. MY FAULT FOR CHECKING THE VOLTAGES AT THE RS-232 O/P OF THE COMPUTER AFTER LOADING THE PRGM.

WITH DIGICOM I HAD A 220 ohm RESISTER IN SERIES TO THE OPTO. TXD TO MODEM, WHICH MEASURED OK VOLTAGE WISE AFTER THE PRGM WAS LOADED. BUT NOT REPEAT NOT. WHEN COMPUTER IS FIRST SWITHED ON OR BEFORE PRGM LOADED. AFTER MNY TRIALS IT WAS FOUND THAT THE DIGICOM MODEM WOULD WORK PROVIDED IT WAS SWITCHED ON AFTER THE PRGM WAS LOADED AND ON THE SCREEN...WITHOUT ANY CHANGES TO THE MODEM. DURING THE LAST FEW WEEKS USING THE DIGICOM MODEM, THERE HAVE BEEN SHORT POWER FAILS WHEN THE POWER WENT OFF THEN CAME BACK ON. EACH TIME THAT HAS HAPENED I HAVE HAD TO REPLACE THE OPTOCOUPLER. ANY IDEAS ON A SAFETY CCT WOULD BE APPRECIATED. BY INCREASING THE 220 ohm RESISTER LOWERS THE VOLTAGE AT THE OPTO BELOW 5 VOLTS. NOT GOOD. MY NEXT EXPERIMENT WILL BE TO USE A MAX232 INTERFACE CHIP BETWEEN COMPUTER AND MODEM.

2..THE BAYCOM MODEM. WILL NOT WORK WITH MY COMPUTER USING COMPUTER VOLTAGES FROM SERIAL PORT. SO SEPERATE POWER SUPPLY USED. I USE TWO 9V BATTERIES IN PARALLEL GOING INTO A 5VOLT REGULATOR.

MODIFICACTIONS AS DESCRIBED WITH THE INFO SUPPLIED WITH THE PRGM. WOULD NOT WORK FOR ME. I TRIED THEM ALL. IT WOULD TX BUT NOT RX. ON DIGICOM THE RX LINE TO COMPUTER STATIC STATE IS LOGIC HI. THE BAYCOM CCT IT IS LOW. AS THERE IS A VACANT GATE ON THE LM74HC14 (HEX SCHMITT TRIGGER VOLTAGE INVERTER CMOS IC) I PUT THE RXD FROM PIN 8 OF THE TCM 3105 THRU TWO GATES OF THE LM74HC14. FOR THE RX SECTION TO WORK, THE LOGIC STATE AT CTS PIN 5 RS-232 (PIN 8 ON 9PIN 'D'CONNECTOR) IS +5V. INCOMMING DATA HAS TO PULL THIS DOWN BY AT LEAST 1.5 VOLTS. THEREFORE THE 2.2K RESISTER ON THE CCT I HAVE HAD TO BE REDUCED. I FINISHED UP REMOVING IT.

PIN 7 OF THE TCM 3105 IS CRITICAL. RX BIAS +2.7 VOLTS. IF YOUR MAIN 5V SUPPLY VARIES BY X% THE BIAS VOLTAGE SEEMS TO ALTER TWICE AS MUCH. THAT IS WHY I USE 2 X 9V BATTERIES IN PARALLEL.

PIN 10 (CARRIER DETECTECT LEVEL) VOLTAGE HERE IS WHAT RX BIAS IS ADJUSTED FOR. WITH +5 VOLT SUPPLY.

* PIN 7	MIN +2.3 VOLTS.	TYPICAL +2.7 V.	MAX. +3.1 VOLTS
PIN 10	MIN.+2.8 V	TYP... +3.3 V	MAX. +3.9 VOLTS

MY BAYCOM MODEM CIRCUITRY VARIES FROM THE ORIGINAL I RECEIVED WITH THE PRGM. BY THE FOLLOWING.

TCM3105
 PIN 11-----1uf-----10k ohms-----TX/RX MIC
 PIN 4 -----+ .1 uf tant-----EX/SPKR
 PIN 8 -----TWO GATES OF 74HC14-----PIN 5 RS-232 CTS
 INDEPNDANT POWER SUPPLY.
 SWITCH MODEM ON AFTER LOADING PRGM.

THE PRGM SOFTWARE BEING THE FIRST RELEASE, HAS MANY PROBLEMS. AS THEY CANNOT BE CHANGED, I AM LOOKING FORWARD TO RECEIVING MY UPDATED PRGM WHEN IT COMES TO HAND. IN THE MEANTIME WE HAVE TO PERSERVERE WITH THE PROBLEMS. SO HERE IS HOW TO COPE WITH SOME OF THE UNEXPLAINED.

1... USE THE BAT FILE 'SETUP' TO SET YOUR PARAMETERS. .FOR MYCALL YOU HAVE TO ENTER TWO V IN THE CALL VVK#abc (vvk6fp)
 TO CONNECT TO ANOTHER STN. :C VVK6FP
 TO CONNECT VIA A REPEATER. :C VVK6FP VIA VK6Rxx
 via 2 stns. :C VVK6FP VIA VK6Rxx,VVK6xyz.

The colon is the cmd mode DELETE THE COLON for converse mode.
 The escape key toggles the CMD on or off.

Type... :HELP FOR HELP FILE
 TYPE. .. :C TEST TO TEST TO TEST PTT AND TX
 TYPE. .. :C (YOUR CALLSIGN VVK....) VIA A REPEATER VK.... TO CONNECT TO YOUR SELF TO TEST RX.

IF YOU ARE USING 'A' DRIVE WHEN LOADING PRGM.

:O VIEW (FILE NAME)

:O DIR TO SEE DISK DIRECTORY.

:O B: TO CHANGE FROM A DRIVE TO B DRIVE.

:O B:VIEW (FILENAME) IF YOU WERE ORIGINALLY USING A DRIVE

:O DEL (FILENAME) TO DELETE A FILE

WHEN CLOSING A FILE AFTER USING W (WRITE CMD) OR E (EDIT CMD)

TYPE. :W AUS OR E AUS AS THE CMD GERMAN OFF DOES NOT WORK ON V1.2

TRANSLATION OF SOME OF THE GERMAN RESPONSES.

WIRD GESCHLOSSEN. ..= GETS OPENED (FILE OPEN)

GEOFFNET = TO OPEN (IS CREATED I THINK)

VIDEOZELLON =VIDEO LINES (VIEWING WINDOW SIZE)

KANNAEL = CHANNEL

UNGULTIGER = NOT RECOGNISED

TASTE DRUKEN =PRESS ANY KEY

THE CMD RETRY ONLY WORKS FOR THE C TEST CMD. .IF YOU TRY TO CONNECT TO A STATION THAT DOES NOT REPLY YOU HAVE TO USE, :D TO DISCONNECT BEFORE YOU TRY TO CON TO ANOTHER STN.

TO DISCONNECT FROM A BBS YOU HAVE TO USE B (NO CMD COLON)

THE 'D' CMD ONLY DISCONNECTS YOUR STN NOT THE ONE YOU ARE WORKING.

YOU CANNOT TX UN PROTO TEXT. IF IN CONVERSE MODE AND YOU ARE NOT CONNECTED TO A STN. IF YOU TYPE TEXT AND PRESS RETURN IT DOES NOT GET TRANSMITTED, AS IT DOES IN THE DIGICOM C64 SETUP AS UNPRO TEXT. THIS GAVE ME GREAT CONCERN WHEN FIRST TRYING BAYCOM, AS I THOUGHT THE PTT WAS NOT WORKING. THAT IS WHY YOU USE THE CMD. :C TEST.

BAYCOM IS NOT COMPATABLE TO THOSE BBS'S THAT USE WORLI SOFTWARE. SUCH AS VK2XY OR VK2EHQ. .THE ONLY WAY THOSE STNS CAN BE WORKED USING BAYCOM IS VIA A REPEATER.

HOPING THIS IS OF SOME HELP TO THOSE HAVING PROBLEMS WITH BAYCOM.

73 DE MICK VK6FP @ VK6BBK.#WA.AUS.OC

 *
 * CONGRATULATIONS. *
 *

Congratulations to the following Club members who were successful in gaining callsigns at the recent examinations run by B.A.R.G. They were; Debbie Bilston , VK3PDB, Her "better" half Ken, VK3PDA. and Doug Raper, VK3VBA. A great job and thanks to their helpers.

Technical Committee Report 90/91

A few highlights this past year has been the upgrade of VK3RBA (Mt. Buninyong), this has given increased coverage and better control facilities, (remember the JOTA weekend where many users contacted interstate stations via VK3RBA and the Aussat Satellite).

Repeater VK3RBS (Smeaton Hill) at one stage had a serious desense problem, but a total retune and a rebuild of the power supply has ensured good user coverage to the Daylesford and Maryborough area.

All packet users are aware that VK3RPC (Mt. Warrenheip) has been upgraded with a new antenna, transceiver and a firmware change.

"At last" VK3RBU, our new UHF repeater is operational and although still running from a test site in GREATER BALLAARAT has many users constructing antennas and modifying ex-commercial equip. to try out the UHF band, this in itself is really terrific (a great educational tool)

To ensure quality service to all, we appreciate the need to upgrade our repeater network.

Projects planned for 91/92 are:-

In early "92" locate VK3RBU at Mt. Hollowback, the delay is because major aggregation works at the site.

At Mt. Warrenheip, VK3RPC has a desense problem, coming from shared users on site. (we think)

This one may take a while.....but no problems!

To establish another WIA/VK3BML site at Mt. Ben Nevis. (near Ararat) This will further improve the Victorian Network, and at this stage (negotiation pending) promises to be a project requiring many skills from brick-laying to the equipment commissioning of equipment for the site.

We will keep you posted on this one.....

Another project in the pipeline is to provide a RE-BROADCAST of the Sunday morning WIA broadcast on VK3RBA.

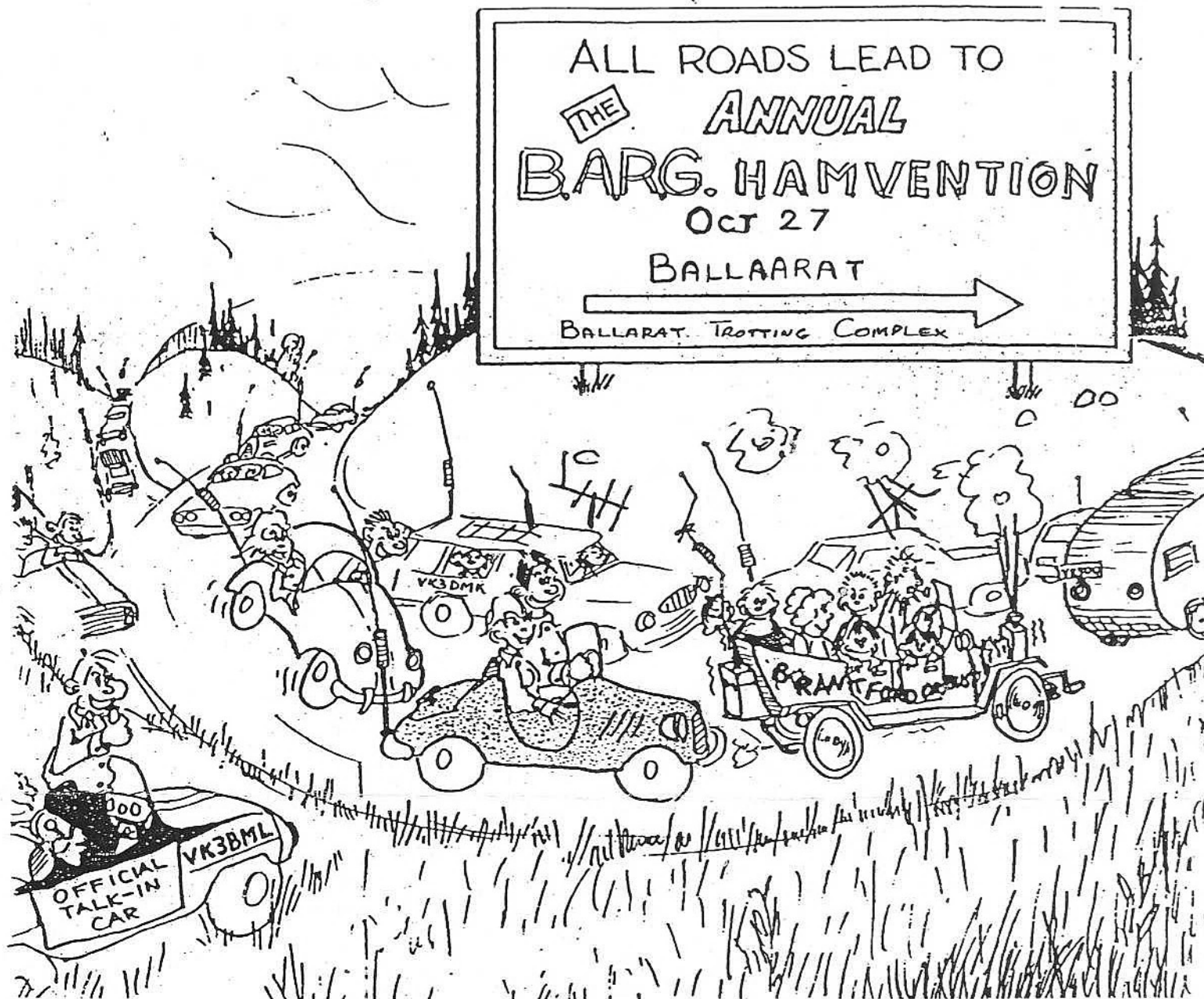
This will be achieved by a UHF link from Mt. Anakie, (Geelong) using sub-audible switching.

This service will provide source of information regarding policies affecting all amateurs (WIA member or not!)

It has been suggested that the Technical Committee produce a series of articles in the club magazine on what makes a repeater function.

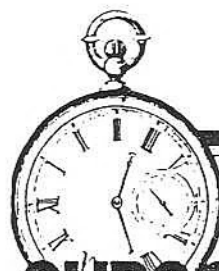
I'm sure that Mr. Editor will be pleased, but do "YOU" need to know.....tell a Tech. Committeeman now!!!

Cheers...Dick - VK3AEX



MURPHYS LAW -- ELECTRICAL DIVISION

1. Any wire cut to length will be too short
2. Tolerances will accumulate towards maximum difficulty of assembly
3. Identical units tested under identical conditions will not be identical in field trials
4. The availability of a component is inversely proportional to the need for the component
5. If a project need N components then there will be N-1 components in stock
6. If a particular resistance is needed, that value will not be available. It cannot be created with any series or parallel combination.
7. A dropped tool will land where it can do the most amage. (Also known as the law of selective gravitation)
8. A device selected at random from a group having 99% reliability will be a member of the 1% group.

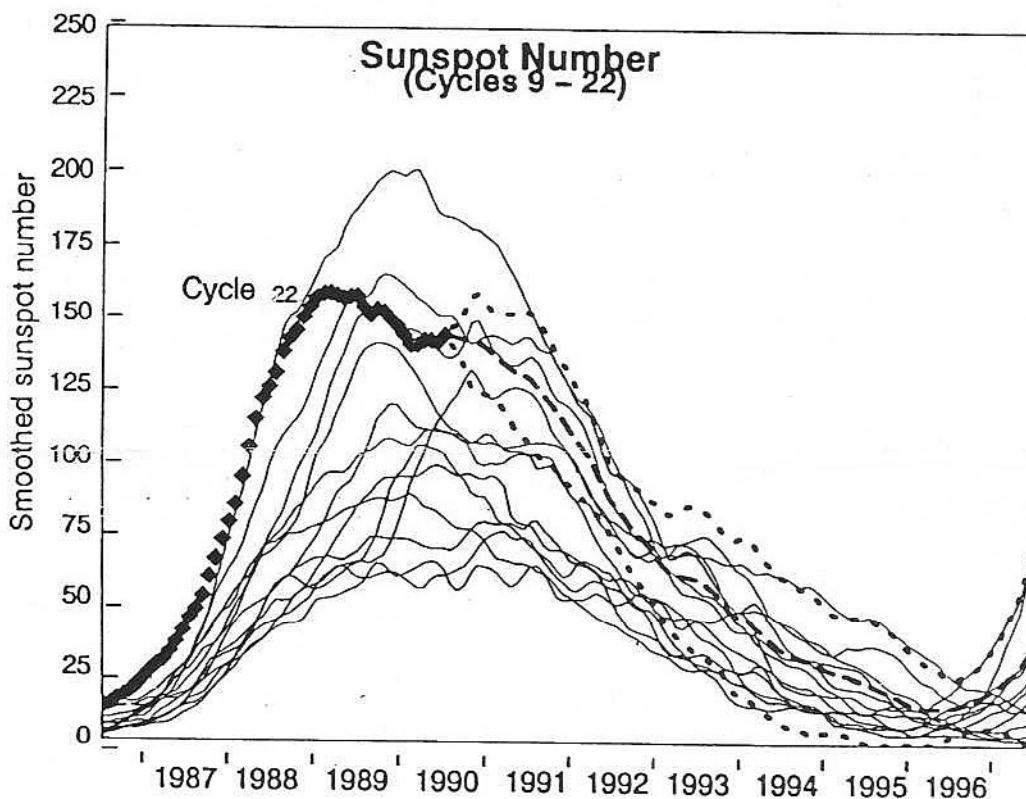
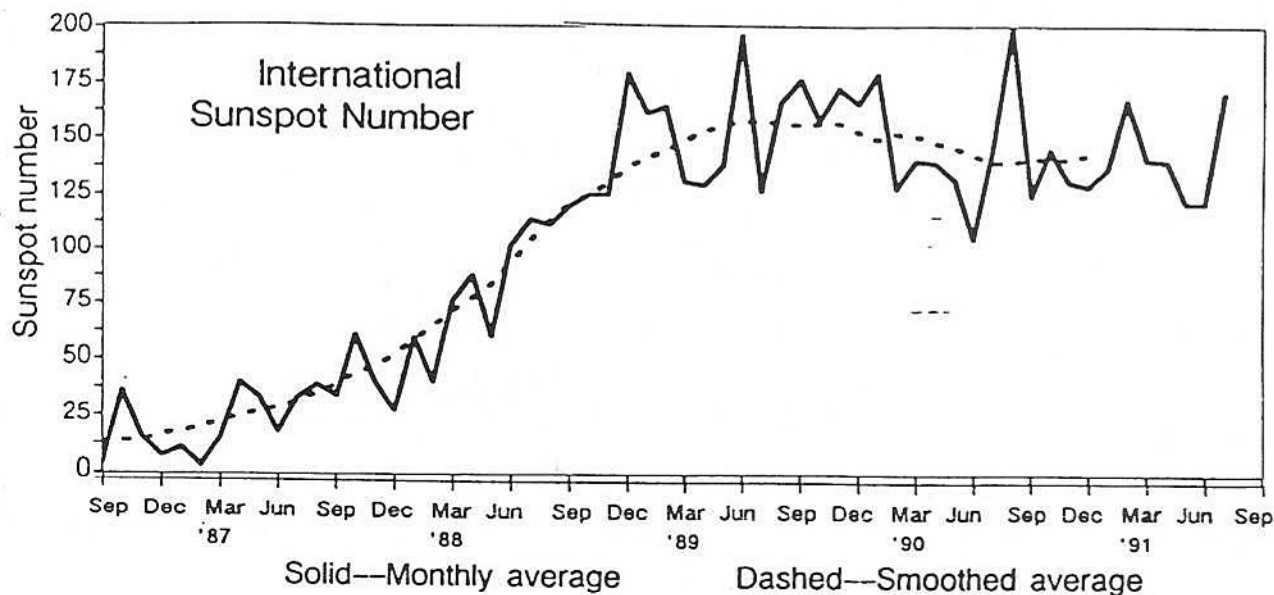


IT'S TIME TO
RENEW YOUR

SUBSCRIPTION

Technical Articles
Always Needed

10



W5GVE

Bill Nogues, Box 5218, Zapata, TX 78076 USA EL-06
 Hi, Maurie, VK3XEX, down under in QF-12
 Confirming our QSO of 04/20/91 at 2345 Z
 on 50 MHz. Your SSB sigs peaked S-5
 Rig Hr.-Swan 250, 90W / Vanguard conv.+TS-520
 to 6 ele HB at 50'. Thanks for the QSO
 and the QSL. 73, Bill, W5GVE SWOT#144

A fantastic signal for solar powered 10W rig. It was a
 privilege to work you, Maurie. Hope to see you again.

Bill

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	David McConnell	VK3YNB		
NEWSLETTER EDITORS	Bob Terrill	VK3BNC	395317	391001
	Harry Hekkema	VK3KGL	357563	391001

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 VK3RBS - 146.900 Voice. Smeaton Hill. (Ch.6)
 VK3RPC - 147.600 Packet. Mt. Warrenheip
 VK3RBU - 438.475 Voice. Smeaton Hill

CLUB NET: On 3.5610 Mhz. SSB +/- QRM.
 Every Thursday at 8 PM.

MEETINGS: Held every last Friday of
 month at 7.30 PM. in the
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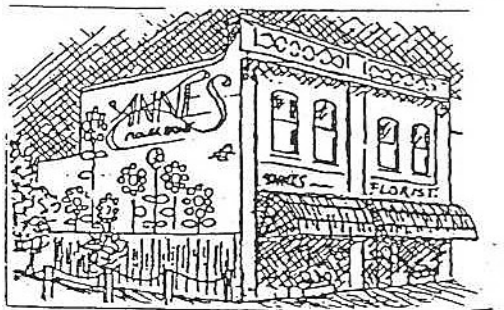
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